

The adults were first observed at Westbury, New York, May 25. Both sexes were observed upon the foliage and new growth, feeding, mating and egg laying. They were very abundant, five or six examples occurring on one stem. The adults damage the stems in feeding and in making egg punctures which are sometimes so plentiful as to cause the stem to wilt. The eggs hatch about ten days after being deposited. The larvae work in the shoots and leaf stems, making holes and mines that weaken them. When severe, the new growth dies and the leaves wilt or the weakened stems blow off or the conditions are attractive for other insect trouble or fungus disease. About the last of July the larvae are full grown and leave the stems and go into the ground.

*Cryptorhynchus fallax* Lec.—Reared from *Quercus alba* and *Cercis canadensis*. Hummelstown, Pa., VIII-3, VIII-22—Kirk and Knull.

## New Records of Aquatic Hemiptera for the United States, with Description of New Species.

By J. R. DE LA TORRE-BUENO, White Plains, New York.

Prof. H. B. Hungerford, of the University of Kansas, sent me a number of odd water-bugs for examination. These present a number of new and noteworthy occurrences, some being recorded for the first time from the United States, to which special attention should be drawn through a separate note, rather than to lose them in a general paper on a group.

*Buenoa elegans* Fieb. Cherokee County, Kansas, Aug., 1920. (Hungerford and Beamer). First record for the State.

*Buenoa margaritacea* Bueno. Cherokee County, Kansas, Aug., 1920. (Hungerford and Beamer). Another first record.

*Ranatra kirkaldyi* Bueno. Cherokee County, Kansas. (Hungerford and Beamer). This likewise is new to Kansas.

It may not be amiss to comment here on the validity of this species, in advance of a future careful analysis of the genus. Prof. Montandon, without knowing the species in nature, proceeds to synonymize it (1910, Bull. Soc. Sci. Buc., xviii, 183) with *R. fusca* P. B., in which, naturally, Van Duzee follows him in his Catalog (1917, p. 462). However, there are specimens in the U. S. National Museum named *fusca* P. B. by Prof. Montandon, which are the same form I recognize as Palisot

de Beauvois' species. It also seems to be *R. nigra* H. S., according to the head structure. This species is separable from all the other United States forms known to me by having a profoundly *unisulcate* prosternum. This note complies with the requests of my correspondents to rectify the matter. The synonymy and distribution of *Ranatra fusca*, *R. kirkaldyi* and *R. nigra*, as given by Montandon and Van Duzee, are incorrect and will require careful study to straighten out finally.

**Gelastocoris oculatus** Fabr. This species is another new Kansan record, and is likewise authentic. I can find no difference between the two specimens before me from Cherokee County, Kansas, Aug., 1920 (Hungerford and Beamer), and specimens of the typical form from Washington, D. C.

**Gerris (Aquarius) orba** Stal. Bluff, Utah. (R. C. Moore). A new record for the State.

**Gerris (Tenagogonus) hesione** Kirkaldy. Cherokee County, Kansas, Aug., 1920. (Hungerford and Beamer). This delicate little gerrid is a first record from Kansas, which is the farthest western point from which the species is known; the other two states in which it has been found are Florida and Ohio.

**Microvelia circumcincta** Champ. Ardmore, Okla. (R. C. Moore). This is a most interesting record. The species was described by Champion from Guatemala. I took it in Tamaulipas, in Northern Mexico, and have seen it from Texas. These are all new distributional records.

**Rhagovelia distincta** Champ. Yampa R., N. W. Colorado (R. C. Moore). This is another of Champion's Central American species, now positively recorded from the United States. Walker (*Catalogue*) records the species from "Ind.," so noted by Van Duzee (*Catalogue*).  
**Trepobatopsis trux** n. sp.

*Head*: Broader (including eyes), and longer than prothorax; tumid and as long as broad between the eyes. Eyes moderately large, quite oblique, shorter axis (breadth), four-fifths of the longer. Three large black shining setigerous loci in a line near each eye. Antennae slender (first two joints only present in type); basal joint curved at base; second joint one-fourth length of first, slightly enlarged at tip. Rostrum short, stout, 3 (?) visible joints covered with long silvery grey hairs.

*Thorax*: All three thoracic segments distinct dorsally. *Pronotum* about three times as wide as long, narrower than head with eyes, set in a deep emargination in mesonotum. *Prosternum* with deep acetabula under eyes for anterior coxae. *Mesonotum* twice as wide as long, divided medially by a deep longitudinal linear suture; anteriorly deeply roundedly emarginate to receive the pronotum; posteriorly sinuate. *Mesopleurae* extended backward to level of posterior margin of meta-

notum, simple, without sutures. *Mesosternum* simple, a deep submarginal suture dividing off the pleurae for about one-half their length. *Metanotum* about one-half length of pronotum, sinuate posteriorly and divided in two by a sinuate cross suture; anterior part longer than posterior; lateral pieces (acetabula) for the coxae running back half way of the second abdominal segment. *Metasternum* concealed.

*Abdomen*: Slightly longer including genital segment, than wide ( $\delta$ ); not quite as long (including genital abdominal segment) as wide ( $\varphi$ ); connexivum wide, so reflexed as to be practically vertical; six abdominal segments visible dorsally and seven sternally, exclusive of the genital segment; 6th abdominal segment ( $\delta$ ) beneath emarginate trapezoidally posteriorly to receive 7th segment; 7th segment twice as long as any of the others, roundedly emarginate to receive cylindrical genital segment; all other segments short and ringlike and subequal in length. *Genital segment* ( $\delta$ ) cylindrical, rounded terminally, slightly longer than broad, as long as the four terminal abdominal segments taken together; beneath with a rounded operculum through which the genitalia show as two rounded protuberances, one in front of the other. Seventh abdominal segment ( $\varphi$ ) long and broad, beneath emarginate trapezoidally posteriorly to receive genital segment; all other segments short and ringlike and subequal in length. *Genital segment* ( $\varphi$ ) narrow, roundedly triangular with a keel-like longitudinal slit and a knoblike apex.

*Legs*: Anterior femora moderately stout, unarmed; tibiae one-quarter longer, more slender. Intermediate femora to tibiae as 7 to 9 in length, slightly stouter than tibiae, covered with short stout hairs, spine-like in middle leg, longer spinous bristles at ends of joints. Two stout spines at distal end of femur. Anterior femora only present in type; other joints of legs described from the type series specimens.

*Color*: Head somewhat flavous or darker with blackish pattern, covered with long silvery grey pubescence, the 6 setigerous loci shining black. Prothorax black, middle flavous and anterior margins broadly slate grey. Mesothorax black, a broad slate-grey stripe, and pleura and sterna all slate grey; a double line of black spots running down the tergum, rather linear on the posterior margin of the abdominal segments;  $\delta$  genital segment piceous; two round black spots on the  $\varphi$  genital segment, the extreme knob of which is piceous. Abdomen beneath the same colors, except that the black markings are more linear and placed on the posterior margin of each segment, widest on the 6th and disappearing on the first and second; the last (7th) segment is broadly roundedly black in  $\delta$  and subtriangularly black medially in  $\varphi$ . Edges of genital segment black in  $\varphi$ ; black in  $\delta$ .

The general ground color is black, body pubescence silvery grey and long particularly on the rostrum, or slaty grey and velvety.

*Dimensions*: Type—long, 4.4 mm.; lat., 2.2 mm. Allotype—long, 5 mm.; lat., 2.7 mm.

*Type*—Apterous ♂, Yampa River, N. W. Colorado, August 20, 1920; allotype, same data; paratypes, 2 males and 5 females, same data. R. C. Moore, collector. Type, allotype, 1 male and 4 female paratypes, in collection of University of Kansas; 1 male and 1 female paratype in my collection.

Described under binocular microscope, with 55 mm. objective and x10 eyepiece, and 24 mm. eyepiece for pubescence and finer details. Eyepiece micrometer ruled to .001 mm. used for proportions.

This species seems to belong in the monotypic genus *Trepobatopsis*, described by Champion from a single mutilated apterous male from Mexico (Sallé). The female and the winged of both sexes of *denticornis* Champ. are still to be described. The absence of the antennal joints and tarsi, however, forbids certainty as to the genus to which our species is to be attributed, but if it represents another genus, it is probably a new one, close akin to *Trepobatopsis*.

This species differs generically from *Trepobates* Uhler in the size and proportions of the head; proportion of first two antennal joints; pronotal proportions, and structure of abdomen. The color and the proportions of the leg segments and the absence of teeth on the anterior femora and the intermediate tibia at once separate it from *Trepobatopsis denticornis* Champ.

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### **Atrytone kumskaka Scudder (Lep., Rhop.).**

By HENRY SKINNER.

This Hesperid has been under discussion for a number of years and has not been positively identified. Specimens taken in Iowa were referred to *conspicua* Edwards by Dr. Scudder. Discovering his mistake in 1887, he named the species *kumskaka* and gave a full description of it and figured the abdominal appendages of the male. It was described from two males and three females from the "Western States." According to the description of *kumskaka* (*conspicua* nec Edwards) in the *Transactions of The Chicago Academy of Sciences*, two males and a female were taken by J. A. Allen, at Denison, Iowa, in July, on *Echinacca angustifolia* D. C., a plant growing on grassy knolls of the open prairie. Mr. Nathan Banks has very kindly